CLAIMS

This listing will replace all prior versions and listings of the claims in this application. Please amend the claims as listed below.

Listing of Claims:

1-9. (Canceled)

10. (Original) A distributed router, comprising:

a fabric composed of a multiplicity of units each having respective user ports and at least one fabric port, and internal fabric links between fabric ports, said fabric constituting a single network node;

wherein each unit includes at least one bridge connected to at least one of the respective user ports and to each fabric port of the unit and further includes at least one router connected to said bridge;

wherein a unit which receives multicast packets intended for forwarding from another unit in the fabric bridges those multicast packets to a fabric port of this unit;

wherein a unit having a local user port or ports from which said multicast packets are to be forwarded replicates said multicast packets as necessary and routes said multicast packets to said local user port or ports;

wherein a unit which receives at a user port unicast packets intended for forwarding from another unit routes those packets to a fabric port of this unit; and

wherein a unit which receives at a fabric port unicast packets bridges those unicast packets to another port of that unit.

11. (Original) A distributed router according to claim 10 wherein each unit includes a multiplicity of bridges, one for each of a plurality of domains and on receipt of multicast packets pertaining to a particular domain bridges those packets on said particular domain.

12. (Original) A network unit for use in a fabric of units capable of distributed unicast and multicast routing wherein the fabric presents only one routing hop between ingress of packets to the fabric and egress of said packets from the fabric, said network unit comprising:

a multiplicity of user ports for connection to an external network;

at least one fabric port for connection to another unit in the fabric;

at least one bridge connected to at least some of said user ports and to each fabric port; and

a router interfaced with said bridge;

wherein said unit is organized on receipt of multicast packets intended for forwarding from another unit in the fabric to bridge those multicast packets to a fabric port of this unit;

wherein said unit is organized, on receipt at a fabric port of multicast packets intended for forwarding from user port or ports of said unit, to replicate said multicast packets as necessary and to route said multicast packets to said local user port or ports;

wherein the unit is organized on receipt of unicast packets at a user port and intended for forwarding from another unit to routes those packets to a fabric port of this unit; and

wherein the unit is organized on receipt of unicast packets at a fabric port bridges those unicast packets to another port.

13. (Original) A distributed router according to claim 12 wherein each unit includes a multiplicity of bridges, one for each of a plurality of domains and on receipt of multicast packets pertaining to a particular domain bridges those packets on said particular domain.